Arkansas Interoperable Communications

Executive Committee (AICEC)

ARKANSAS
STATEWIDE COMMUNICATIONS
INTEROPERABILITY PLAN

2017-2020

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LETTER FROM THE SWIC

Greetings,

I am pleased to present to you the 2017 Arkansas Statewide Communication Interoperability Plan (SCIP). This SCIP represents Arkansas' continued commitment to improving emergency communications interoperability and supporting the public safety practitioner community throughout the state.

With support from the Department of Homeland Security's Office of Emergency Communications (OEC), representatives from the Arkansas Interoperable Communications Executive Committee (AICEC), the Arkansas Interoperable Communications Committee (AICC), and state and local agencies from across the state collaborated to rewrite the SCIP to include actionable and measurable strategies and tactics. These strategies and tactics focus on governance, technology and funding sustainability, and are designed to support our state in planning for new technologies and navigating the ever-changing emergency communications ecosystem. As a result of the updates for 2017, you will find both new and ongoing interoperability initiatives in the SCIP.

The State of Arkansas faces complex challenges as we work towards achieving public safety interoperability. For the next three-to-five years, this strategic plan will guide our efforts to protect its almost 3 million citizens and communities through advances in governance, technology, and funding for interoperable emergency communications.

As we continue to enhance interoperability, we must remain dedicated and continue to improve our ability to communicate among disciplines and across jurisdictional boundaries. With help from public safety practitioners statewide, we will work to achieve the goals set forth in this SCIP and become a nationwide model for statewide interoperability.

Sincerely,

Penny Rubow, Arkansas Statewide Interoperability Coordinator

DEVELOPED WITH SUPPORT FROM THE
DHS OFFICE OF EMERGENCY COMMUNICATIONS

Arkansas SCIP Workshop, October 11-12, 2017

On October 11-12, 2017, Arkansas hosted a two-day Enhanced SCIP Pilot Workshop to develop goals to improve interoperable emergency communications in three key areas: Governance, Technology, and Funding and Sustainment. Stakeholders leveraged the successes and gaps that were previously identified during the Governance, Technology, and Funding and Sustainment engagements to develop SCIP strategies and tactics, account for planning activities involving new technologies and the emergency communications ecosystem, and incorporate national efforts and strategies as needed.

The Arkansas Statewide Communication Interoperability Plan (SCIP) is a stakeholder-driven, multi-jurisdictional, and multi-disciplinary statewide strategic plan to enhance interoperable and emergency communications. The Enhanced SCIP is a critical mid-range (three to five years) strategic planning tool to help Arkansas prioritize resources, strengthen governance, identify future investments, and address interoperability gaps.

The Enhanced SCIP Pilot program was developed as a series of targeted engagements designed to identify the successes, gaps and challenges in governance, technology, and funding and sustainment, *see Figure 1*. Arkansas utilized a collaborative and objective-oriented approach to bring together key stakeholders from across disciplines, agencies, and jurisdictions within the State to participate in each of these engagements.

Figure 1: Enhanced SCIP Process

Data gathered during the Technology and Funding and Sustainment engagements and a Governance working session was then assessed during the SCIP workshop to develop new strategies and tactics to help position Arkansas to meet today's needs and to plan for the integration of emerging technologies. The resulting strategies and tactics along with owners, completion dates and measurements are provided within this strategic plan.

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INTRODUCTION

Guiding Approach / Principles

The flow of information and communications between government agencies, the private sector, the public sector and, in some cases, entities from neighboring states is being facilitated by the modernization of the components of emergency communications

The deployment of FirstNet, wireless broadband networks and applications will greatly influence incident operations as they become more prevalent and are more widely adopted by emergency responders. In addition to FirstNet, there are also efforts to update the Nation's 9-1-1 infrastructure to Next Generation 9-1-1 (NG9-1-1), and the recent deployment of a nationwide public alerting system that uses traditional media, such as broadcast and cable, as well as Internet Protocol-based technologies to transmit alerts to mobile phones and other devices. When considering and preparing for these changes to the emergency communication's landscape, Arkansas has developed a new and enhanced SCIP using a more holistic approach to strategic planning that incorporates the emergency communications ecosystem and the Interoperability Continuum.

The broader emergency communications ecosystem consists of many inter-related components and functions, including communications for incident response operations, notifications and alerts and warnings, requests for assistance and reporting, and public information exchange. The primary functions of the emergency communications ecosystem are depicted in the 2014 National Emergency Communications Plan (NECP)[1].

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[1] The 2014 NECP can be found here: https://www.dhs.gov/publication/2014-national-emergency-communications-plan

The Interoperability Continuum[2] was developed by SAFECOM and serves as a framework to address challenges and continue improving operable/interoperable and emergency communications. It is designed to assist emergency response agencies and policy makers with planning and implementing interoperability solutions for voice and data communications.

Interoperability Continuum

During the Arkansas SCIP workshop and preceding engagements, participants considered the core elements of the Continuum when reviewing the current and desired states of interoperability within the state. They were also referenced when participants revised the SCIP's vision and mission, and developed the SCIP's new strategies and tactics.
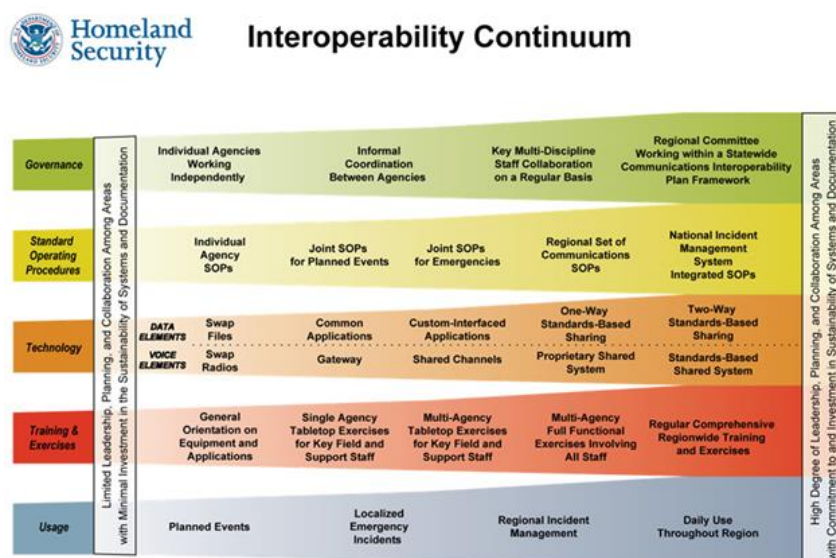
Below are the new Arkansas SCIP vision and mission statements:

Vision:

In order to better protect lives and property, the State of Arkansas will lead the Nation in establishing the ability for public safety stakeholders, across all disciplines and jurisdictions, to exchange information seamlessly, as authorized, on demand, and in real-time.

Mission:

Public safety organizations will work collaboratively with all stakeholders to efficiently and effectively achieve the Arkansas interoperability vision.

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[2] OEC's Interoperability Continuum is available here: http://www.safecomprogram.gov/oecguidancedocuments/continuum/Default.aspx

Arkansas Enhanced SCIP Overview

- ***Overview of Strategies & Tactics.*** Provides an executive summary of the SCIP goals and initiatives and their intended benefits.

- ***Governance & Coordination.*** Describes the current governance mechanisms for communications interoperability within the state along with successes, challenges, and priorities for improving governance within the evolving landscape.

- ***Technology & Operations.*** Describes the core systems used to support public safety communications within the state and the technological and operational enhancements needed to maintain and enhance interoperability across the emergency communications ecosystem.

- ***Funding & Sustainment.*** Describes the funding sources and allocations that support interoperable communications capabilities within the state along with methods and strategies for funding sustainment and enhancement into the future.

- ***Implementation Plan.*** Describes how the State plans to implement, maintain, and update the SCIP to enable continued evolution of and progress toward the State's interoperability goals.

OVERVIEW OF STRATEGIES & TACTICS

Strategies, Tactics & Benefits

Strategies	Tactics	Benefits
Request the establishment of an executive order or statute for governance	Establish an AICEC briefing doc	Codifies the state's governing body, formally recognizing the group when it seeks support and funding from key-decision makers; provides a more formalized framework for collaboration with state and local stakeholders to make decisions on emergency communications policies and programs.
	Determine an executive structure for the governance body (org chart)	
Consolidate various statewide public safety communications committees	Identify committees	Promotes a more efficient use of time and resources for committee members active on multiple committees
	Determine existing legislation for each committee	
	Compile a consolidation plan	
Strengthen/develop AICEC working groups	Ensure public safety broadband, training, technology, policy/administration, and COMU can be addressed	Positions the AICEC working groups to include a broader group of participants representing emerging technologies. Assigns subject matter experts to focus on targeted issues.
Statewide ESINet for 911	Develop a briefing document	Research and identify the needs and requirements to prepare the state for Next Generation 911 capabilities that enable voice, text, data, video and photo communications for emergency calls
	Document requirements	
	Identify a champion	
Maintain high availability public safety communications systems	Maintain system upgrades to ensure operability and interoperability across all technologies	Ensures that existing and future emergency communications systems are maintained and interoperable.
	Obtain a non-biased technical expert to advise the state	
Develop financial requirements for AWIN	Identify costs associated with maintenance, operations, and short and long term growth (lifecycle)	Identifies funding needs and potential revenue streams
	Identify potential state funding resources (ex. marijuana revenue, asset forfeiture, general improvement funds)	
Encourage competition for equipment / services	Review and leverage all existing contracts	Identifies cost-savings opportunities and promotes transparency with current and future investments
Conduct AWIN training	Update/standardize training material	Ensures that up-to-date training is made available for current and future AWIN users
	Establish a training schedule for AWIN	
	Conduct 60 sessions in 3 years	
	Conduct train-the-trainer courses	
	Establish training reporting process	
Conduct interoperability training for legacy systems	Recommend standardized training material	Encourages legacy system owners to provide up-to-date training for current and future users systems usage

Gateway connectivity	Review and update existing policy	Promotes interoperability
	Establish procedures / testing	
	Create and execute gateway agreements	
	Conduct training	

GOVERNANCE & COORDINATION

Strategy	Tactics
Request the establishment of governance through an executive order or statute	• Establish an AICEC briefing documents • Determine an executive structure for the governance body (i.e. org chart)
Consolidate various statewide public safety communications committees	• Identify committees • Determine existing legislation for each committee • Compile a consolidation plan
Strengthen / develop AICEC working groups	• Ensure that public safety broadband, training, technology, policy/administration, and COMU can be addressed

Current State of Governance

The Arkansas Interoperable Communications Committee (AICC) was established as an ad-hoc governing body responsible for addressing challenges to achieving interoperable communications and establishing a partnership among first responders, state agencies, cities and counties. The AICC represents the following organizations:

- Ambulance Association
- APCO
- Arkansas Department of Emergency Management
- Arkansas Department of Highway and Transportation
- Arkansas Department of Health
- Arkansas Department of Parks and Tourism
- Arkansas Emergency Management Association
- Arkansas Forestry Commission
- Arkansas Hospital Association
- Arkansas Game and Fish Commission
- Arkansas Municipal League
- Arkansas Sheriffs' Association
- Arkansas State Police
- Association of Chiefs of Police
- Arkansas Association of Fire Chiefs

- County Judges Association of Arkansas
- Department of Corrections
- Department of Finance and Administration
- Department of Information Systems
- Governor's Designee
- Quorum Court Association

The Arkansas Interoperable Communications Executive Committee (AICEC) is derived from the membership of the AICC and is responsible for the development and maintenance of this document. Members of the Executive Committee represent their discipline, organizations or agency and have the authority to vote on decisions or recommendations. The AICEC meets monthly.

In January 2017, the AICEC established two working groups (policy and COMU) with charters and membership in place.

The Statewide Interoperability Coordinator (SWIC) position in Arkansas is collateral duty and the current SWIC does not serve as the State Point of Contact (SPOC) for FirstNet.

In 2017, the Governor's Office appointed the AWIN Intergovernmental Working Group – a group of state agency leaders to look at AWIN radio system to include funding details and recommendations for improved efficiency, utilization, and capability of the AWIN system along with long-term monetary savings. This group recommended combining AWIN operations and budget under one state agency. Additionally, this group was asked to research the feasibility of moving all state agencies to AWIN. In mid-July, the Governor announced the state's decision to opt-in to FirstNet, and the transfer of AWIN and its resources to ADEM with no identified effective date. In addition, the state is considering an RFP for the planning of NG9-1-1. Given these developments, state officials determined that codifying its governing body through an executive order or legislation would help position the state to better manage its current systems and plan for the use of emerging technology in future years.

Establishment of Formalized Governance Body

Before significant steps can be made towards enhancing interoperability, an Executive Order or statute should be established to formalize the AICEC. Under the current structure, the AICEC is an ad-hoc committee that has no formal authority or oversight. A formalized governance body can provide the following:

- Executive leadership
- A clear direction for future communications efforts.
- A framework in which stakeholders can collaborate and make recommendations to address key challenges to achieving interoperable communications.
- Justification to support funding requests.
- Promote more effective and efficient use of financial and technology resources.

During the SCIP workshop, participants discussed their vision of an effective governance body in Arkansas. Figure 3 below shows what was proposed.
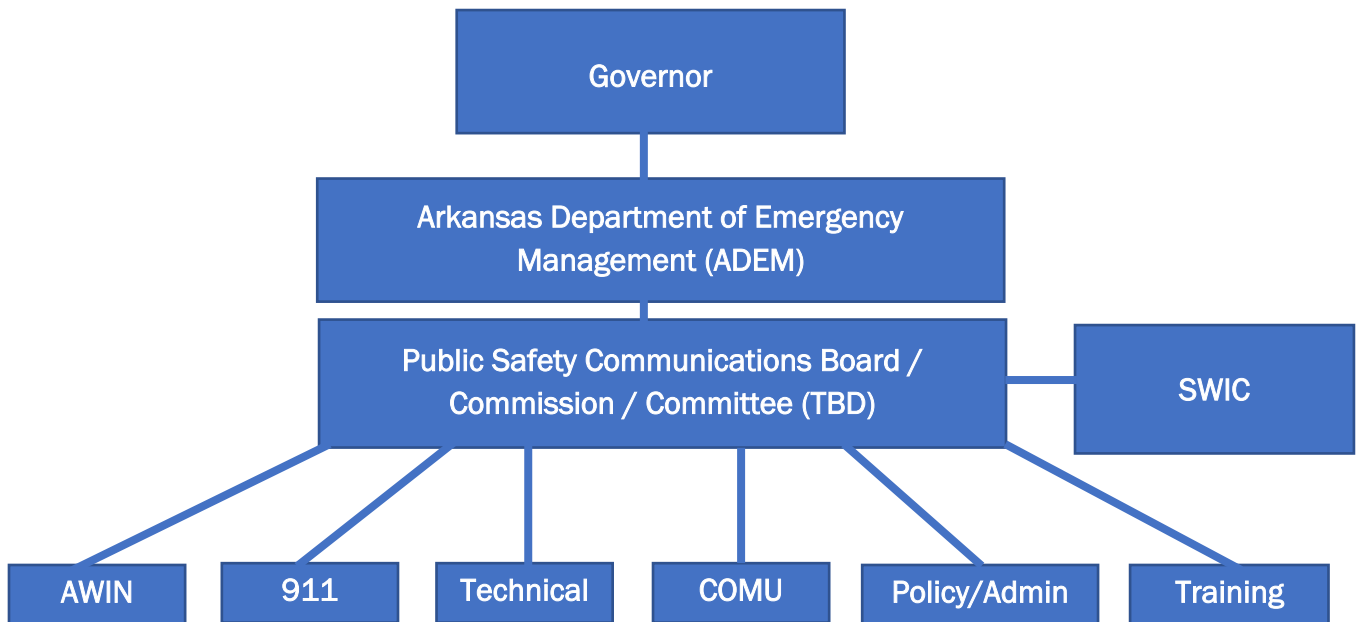

Figure 3: Proposed Arkansas Governance Structure

TECHNOLOGY & OPERATIONS

Strategy	Tactics
Statewide ESINet for 9-1-1	• Develop a briefing document • Document requirements • Identify a champion
Maintain high availability public safety communications systems	• Maintain system upgrades • Obtain a non-biases technical expert to advise the state • Pursue interoperability across all technologies

Current State of Technology

Land Mobile Radio (LMR)

The Arkansas Wireless Information Network (AWIN) is the primary communications system between public safety agencies in the State of Arkansas. The Project 25 (P25)-compliant, 700/800 megahertz (MHz) system was first developed in 2004, leveraging the assets of the Arkansas State Police. AWIN provides a standards-based platform to improve interoperability and compatibilities for state and local agencies, and allows access to a tactical level of connectivity for every county's incident command structure. AWIN supports over 30,000 users representing over 1,000 public safety organizations statewide.

In 2016, an upgrade was made to the AWIN which included replacing 121 Quantaar base stations that had reached end-of-life service with GTR base stations, and upgrading the networks core operating system.

In 2016 six sites were reprogrammed, and the operating frequencies in most users radios were updated to be Band 14 compliant. This work was performed to clear the frequencies for the build-out of FirstNet.

Broadband

On July 13, 2017, Governor Asa Hutchinson announced that Arkansas will opt-in to FirstNet. FirstNet and its partner AT&T will lead efforts to build out the network in the state. The AICC has and will continue to keep the state's public safety community updated on FirstNet activities.

9-1-1 / Next Generation 9-1-1

Arkansas has 131 Public Safety Answering Points (PSAPs) that manage 911 calls at the local level. Like many states, funding remains a challenge in providing the desired level of service and technology to cellular users and other emerging technologies. Some of these requirements include: text-to-911 capabilities, enhanced connectivity across PSAPs and additional trained personnel.

Alerts & Warnings

Desired State

➢ AWIN with statewide gateways for local systems

➢ FirstNet buildout with priority / preemptive access

➢ Statewide ESInet fully funded, standardized level of service

➢ Education about IPAWS and state systems

Figure 4: Desired Technology State

In Arkansas, the Federal Emergency Management Agency's (FEMA) Integrated Public Alert and Warning System (IPAWS) provides the Arkansas Department of Emergency Management (ADEM) with services to alert and warn the public of serious emergencies. This is done through the use of the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), the National Oceanic and Atmospheric Administration (NOAA), and other public alerting systems. Local jurisdictions may request ADEM to send WEA or NOAA alerts to their citizens.

Alerts are also provided to public safety through the Arkansas Alert Xpress. This service provides subscribers notifications by phone and/or email in the event of an escape from an Arkansas Department of Correction (ADC) or Community Correction facility. In addition, the Arkansas' Victim Information and Notification (VINE) provides free and anonymous telephone alerts to victims on the status of offenders in county jails, ADC facilities and court information from the prosecuting attorney's offices.

FUNDING & SUSTAINMENT

Strategy	Tactics
Develop financial requirements for AWIN	• Identify costs associated with maintenance, operations, and short and long term growth (lifecycle) • Identify potential state funding resources (ex. Marijuana revenue, asset forfeiture, general improvements funds)
Encourage competition for equipment / services	• Review and leverage all existing contracts

Current State of Funding

Arkansas Wireless Interoperability Network (AWIN)

AWIN has an annual operations and maintenance budget of $6.2 million provided through appropriations from the state's budget. However, over the past two years (2016-2017) AWIN has realized a budget deficit totaling nearly $800,000 resulting in requests for additional funding from the state to meet current operational requirements. In 2016, Arkansas Governor Asa Hutchinson provided $9.9 million to upgrade the AWIN radio infrastructure and to perform an operating system upgrade. A grant totaling $3.8 million from the U.S. Department of Commerce was provided for Arkansas to reprogram existing radios and infrastructure using Band 14 frequencies in advance of the deployment of FirstNet.

Funding Priorities

Moving forward, these are Arkansas's funding priorities:

- Increase the annual budget to meet current maintenance and support needs
- Identify a recurring funding source to support, maintain and upgrade the system as needed and not on an emergency basis.
- Priority / preemptive access to an affordable statewide broadband network that will be interoperable with other broadband devices regardless of the users network.

OTHER STRATEGIES AND TACTICS

Strategy	Tactics
Conduct AWIN training	• Update/standardize training • Establish a training schedule for AWIN • Conduct 60 sessions in 3 years • Conduct train-the-trainer courses • Establish training reporting process
Conduct interoperability training for legacy systems	• Recommend standardized training material
Gateway connectivity	• Review and update existing policy • Establish procedures / testing • Create and execute gateway agreements • Conduct training

Additional Priorities

Workshop participants identified additional strategies and tactics to be included in the SCIP. These include those to conduct training on AWIN and legacy systems, and with gateway connectivity.

Implementation / Evaluation / Progress Measurement / DHS Support

The SWIC serves as the chief administrator of the SCIP and is responsible for tracking progress towards achieving the SCIP goals. The AICEC will add the strategies assigned to its committees as formal agenda items for review and oversight during regular meetings. The SWIC and working group members will provide status updates and coordinate collaborative action and planning to ensure continued progress. The AICEC will also conduct a thorough review of the SCIP on a biennial basis to update strategies and tactics to address identified needs and advancements involving statewide emergency communications capabilities.

Each year, OEC works with all 56 states and territories in measuring progress towards implementing SCIP goals / strategies through the annual SCIP Snapshot process. Findings from the reporting help identify successes and challenges in meeting goals, and helps OEC provide targeted technical assistance in the form of training and resources offered through its Interoperable Communications Technical Assistance Program (ICTAP).

ICTAP offerings of interest include:

- Formal Governance Documentation Review, Assessment and Development
- Communications Unit (COMU) Planning and Policies, Project Management
- Tactical Interoperable Communications Plan (TICP) Field Operations Guide (TIC-FOG) Review and Development
- Next Generation 9-1-1 / Strategic Planning Support
- Communications Unit Leader (COML) Training
- Communications Unit Technician (COMT) Training
- Communications Assets Survey and Mapping (CASM) Tool – Next Generation

Requests for technical assistance are coordinated through the Arkansas SWIC on an annual basis.

For more information, states/territories are encouraged to contact OEC at: SCIP@hq.dhs.gov.

APPENDIX A: List of Acronyms

ADEM	Arkansas Department of Emergency Management
AICEC	Arkansas Interoperable Communications Executive Committee
AICC	Arkansas Interoperable Communications Committee
APCO	Association of Public Safety Officials
AWIN	Arkansas Wireless Interoperability Network
COMU	Communications Unit
ESINet	Emergency Services IP Network
FEMA	Federal Emergency Management Agency
ICTAP	Interoperable Communications Technical Assistance Program
IPAWS	Integrated Public Alert and Warning System
LMR	Land Mobile Radio
NECP	National Emergency Communications Plan
NG9-1-1	Next Generation 9-1-1
OEC	Office of Emergency Communications
P25	Project 25
PSAP	Public Safety Answering Point
SCIP	Statewide Communications Interoperability Plan
SPOC	Single Point of Contact
SWIC	Statewide Interoperability Coordinator

APPENDIX B: SCIP Implementation Plan

	Strategy #	Strategy	Tactics	Owner	Completion Date	Measurement
Governance	1.	Request the establishment of an executive order or statue for governance	Establish an AICEC briefing document	AICEC	August 2018 for legislative consideration	Completion of briefing document
			Determine an executive structure for the governance body (i.e. org chart)		August 2018	
	2.	Consolidate various public safety communications committees	Identify committees	AICEC	March 2018	Compilation of plan
			Determine existing legislation for each committee		April 2018	
			Compile a consolidation plan		August 2018	
	3.	Strengthen/develop AICEC working groups	Ensure public safety broadband, training, technology, policy/administration, and COMU can be addressed	AICEC	March 2018	Working groups have met at least 3 times
Technology	4.	Statewide ESINet for 9-1-1	Develop a briefing document	Policy and Administration Working Group	June 2019	Development of a briefing document
			Document requirements		June 2020	Requirements documented
			Identify a champion		June 2020	
	5.	Maintain high availability public safety communications systems	Maintain system upgrades to ensure alignment with current interoperability standards.	System managers	Ongoing	Currency of system upgrades
			Obtain a non-biased technical expert to advise the state	AICEC	TBD	Completion of work
Funding	6.	Develop financial requirements for AWIN	Identify costs associated with maintenance, operations, and short and long term growth (lifecycle)	AICEC, Policy and Administration Working Group, Technology Working Group	May 2018 to present for January 2019 session	Completion of the document
			Identify potential state funding sources (ex. Marijuana revenue, asset forfeiture, general improvements fund)			

	7.	Encourage competition for equipment / services	Review and leverage all existing contracts	Technology Committee	Ongoing	
Other	8.	Conduct AWIN training	Update / standardize training materials	Training Working Group	June 2018	Updated material
			Establish a training schedule for AWIN		November 2018 (or sooner)	Training schedule established
			Conduct 60 session in 3 years		January 2021	# of sessions completed
			Conduct train-the-trainer courses		June 2018	
			Establish training reporting process		November 2018	Process complete
	9.	Conduct interoperability training for legacy systems	Recommend standardized training materials	Training Working Group	June 2018	Delivery of training material
	10.	Gateway connectivity	Review and update existing policy	Technology Working Group, Training Working Group, Policy and Administrative Working Group	January 2019	Updated policy
			Establish procedures / testing			
			Create and execute gateway agreements	Policy and Administrative Working Group	November 2018	Agreements executed
			Conduct Training	Training Committee	December 2020	Training completed